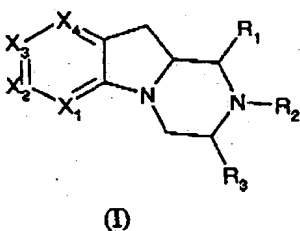


Claims

What is claimed is:

1. A chemical compound of formula (I):



wherein:

R_1 to R_3 are independently selected from hydrogen and lower alkyl;

X_1 is selected from N and C- R_4 ;

X_2 is selected from N and C- R_5 ;

X_3 is selected from N and C- R_6 ;

X_4 is selected from N and C- R_7

R_4 , R_5 and R_7 are independently selected from hydrogen, halogen, hydroxy, alkyl, aryl, alkoxy, aryloxy, alkoyl, aryloyl, alkylthio, arylthio, alkylsulfoxyl, arylsulfoxyl, alkylsulfonyl, arylsulfonyl, amino, alkylamino, dialkylamino, nitro, cyano, carboalkoxy, carboaryloxy and carboxy; and

R_6 is selected from hydrogen, halogen, alkyl, aryl, aryloxy, alkylthio, arylthio, alkylsulfoxyl, arylsulfoxyl, alkylsulfonyl, arylsulfonyl, amino, alkylamino, dialkylamino and cyano;

wherein either at least one of R_5 and R_6 is selected from chlorine, fluorine, haloalkyl and bromine, or R_5 is selected from halogen, haloalkyl and alkylthio, and pharmaceutically acceptable salts and addition compounds thereof.

2. A compound according to claim 1 wherein R_1 is selected from hydrogen and methyl.
3. A compound according to claim 1 wherein R_2 is hydrogen.
4. A compound according to claim 1 wherein R_3 is selected from hydrogen and methyl.
5. A compound according to claim 1 wherein X_2 is C- R_5 .
6. A compound according to claim 1 wherein X_3 is C- R_6 .
7. A compound according to claim 1 wherein X_4 is C- R_7 .
8. A compound according to claim 1 wherein X_1 is C- R_4 .
9. A compound according to claim 1 wherein two of R_4 , R_5 , R_6 and R_7 are hydrogen.
10. A compound according to claim 9 wherein R_4 and R_6 are hydrogen.
11. A compound according to claim 1 wherein two of R_4 , R_5 , R_6 and R_7 are independently selected from hydrogen, chlorine, fluorine, trifluoromethyl and bromine.
12. A compound according to claim 1 wherein three of R_4 , R_5 , R_6 and R_7 are hydrogen.
13. A compound according to claim 1 wherein R_4 , R_6 and R_7 are hydrogen.
14. A compound according to claim 1 wherein R_4 is hydrogen.
15. A compound according to claim 1 wherein R_5 is halogen.
16. A compound according to claim 1 wherein R_6 is hydrogen.
17. A compound according to claim 1 wherein R_7 is halogen.
18. A compound according to claim 1 which is selected from:

(*RS*) 7-chloro-1,2,3,4,10,10a-hexahydropyrazino[1,2-*a*]indole,

(*RS*) 7-chloro-8-methyl-1,2,3,4,10,10a-hexahydropyrazino[1,2-*a*]indole,

(10a*R*) 7-chloro-1,2,3,4,10,10a-hexahydropyrazino[1,2-*a*]indole,
(*RS*) 7-bromo-1,2,3,4,10,10a-hexahydropyrazino[1,2-*a*]indole,
(3*S*, 10a*R*) 8-chloro-2-methyl-1,2,3,4,10,10a-hexahydropyrazino[1,2-*a*]indole,
(10a*R*) 8-chloro-1,2,3,4,10,10a-hexahydropyrazino[1,2-*a*]indole, and
(3*S*, 10a*R*) 8-chloro-2-methyl-1,2,3,4,10,10a-hexahydropyrazino[1,2-*a*]indole.